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US Army Corps of Engineers Waterways Experiment Station

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## **Index of REMR Technology**

and Listing of REMR Research Publications





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### **PREFACE**

# REMR Research Publications Index of REMR Technology

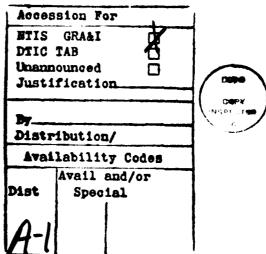
This index lists information sources useful to anyone engaged in repair, evaluation, maintenance, and rehabilitation (REMR) activities in the following areas: coastal, concrete and steel structures, electrical and mechanical, environmental impacts, geotechnical, hydraulics, and operations management.

The pamphlet is divided into five parts. Part 1 is a subject index, referencing technology addressed in the diverse REMR Research publications. Parts 2 through 5 are lists of the titles of these publications: technical reports, technical notes and material data sheets, articles from *The REMR Bulletin*, and videos.

Entries are current through September 1990 and will be updated periodically.

This index was compiled by Ms. Nancy Curtis, REMR Research Pro-

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### PART 1

### **Subject Index of REMR Documents**

All REMR technology--as published in technical reports, technical notes, material data sheets, as well as articles from *The REMR Bulletin* through September 1990--is indexed by subject. The first entry listed is a problem area of the REMR Research Program. The problem areas are as follows:

- COASTAL
- CONCRETE AND STEEL STRUCTURES
- ELECTRICAL AND MECHANICAL
- HYDRAULICS
- OPERATIONS MANAGEMENT
- ENVIRONMENTAL IMPACTS
- GEOTECHNICAL

Additional subject categories are listed in an hierachial order to assist in the rapid identification of pertinent REMR publications. This section serves to identify the codes (letters and numbers) of the publications containing information on a subject area. Parts 2, 3, and 4 can then be used to obtain the full name of the publication. The basic codes are as follows:

Technical reports - TR followed by the problem area abbreviation and report number;

The REMR Bulletin - RB followed by the volume and number of issue;

The REMR Notebook - CM (concrete materials), CO (coastal), CS (concrete and steel), EI (environmental), EM (electrical and mechanical), GT (geotechnical), HY (hydraulics), and OM (operations management), followed by additional identifiers.

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- ELECTRICAL AND MECHANICAL
- ENVIRONMENTAL IMPACTS
- GEOTECHNICAL
- HYDRAULICS
- OPERATIONS MANAGEMENT

Reports have been widely distributed throughout the Corps; division and district libraries have copies on file. Hard or microfiche copies of reports listed with AD numbers can be purchased from the National Technical Information Service, US Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161 (telephone (703) 487-4600). Cost of these reports varies. Price information is available from NTIS on request. Additional information concerning the reports can be obtained from the REMR Technology Transfer Specialist at (601) 634-2587.

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REMR-CO-1	Dec 86	Stability of Rubble-Mound Breakwater and Jetty Toes; Survey of Field Experience, by Dennis G. Markle.	AD A180 108
REMR-CO-2	Jan 89	Prototype Experience with the Use of Dissimilar Armor for Repair and Rehabilitation of Rubble-Mound Coas- tal Structures, by Robert D. Carver.	AD A204 081
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	Sep 88	Report 2 South Atlantic Division, by Francis E. Sargent.	AD A200 458
	Jun 88	Report 3 North Central Division, by Robert R. Bottin, Jr.	AD A198 436
	Sep 88	Report 4 Pacific Ocean Division, by Francis E. Sargent, Dennis G. Markle, and Peter J. Grace.	AD A199 879
	Nov 88	Report 5 North Atlantic Division, by Ernest R. Smith.	AD A207 146
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	Jan 89	Report 7 New England Division, by Francis E. Sargent and Robert R. Bottin, Jr.	AD A204 082
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REMR-CO-4	Feb 88	Stability of Dolos and Tribar Overlays for Rehabilitation of Stone-Armored Rubble-Mound Breakwater and Jetty Trunks Subjected to Breaking Waves by Robert D. Carver and Brenda J. Wright.	AD A192 487

REMR-CO-5	Jun 88	Stability of Dolos Overlays for Rehabilitation of Dolos-Armored Rub- ble-Mound Breakwater and Jetty Trunks Subjected to Breaking Waves, by Robert D. Carver and Brenda J. Wright.	AD A195 392
REMR-CO-6	Aug 88	Stability of Dolos Overlays for Rehabilitation of Tribar-Armored Rub- ble-Mound Breakwater and Jetty Trunks Subjected to Breaking Waves, by Robert D. Carver and Brenda J. Wright.	AD A198 877
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REMR-CO-8	Apr 89	State-of-the-Art Procedures for Sealing Coastal Structures with Grouts and Concretes, by David P. Simpson.	AD A208 884
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	Apr 89	Report 4 Demonstration of Instrumentation Automation Techniques at Beaver Dam, Eureka Springs, Arkansas, by Edward F. O'Neil.	AD A208 571
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Unnumbered	Jan 87	Proceedings of REMR Workshop on Assessment of the Stability of Concrete Structures on Rock, 10-12 September 1985, compiled by William F. McCleese.	AD A185 644
Unnumbered	Aug 89	Sonar Probing of Concrete, by John H. Mims and Robert R. Unterberger.	
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REMR-EI-4	Aug 88	Seasonal Regulation of Repair, Evaluation, Maintenance, and Rehabilitation (REMR) Activities, by Mark W. La-Salle, John Nestler, and Andrew C. Miller.	AD A198 016
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REMR-CT-2	Aug 85	Improvement of Liquefiable Foundation Conditions Beneath Existing Structures, by Richard H. Ledbetter.	AD A160 695

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	Sep 88	Report 3 Remediation, by Christopher P. Cameron, David M. Patrick, Craig O. Bartholomew, Allen W. Hatheway, and James H. May.	AD A203 775
		Report 4 Geologic and Hydrodynamic Controls on the Mechanics of Knick- point Migration, by James H. May	AD A216 749
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REMR-GT-9	Mar 88	A Survey of Engineering Geophysics Capability and Practice in the Corps of Engineers, by Dwain K. Butler, Ronald E. Wahl, Nolan W. R. Mitchell, and Gregory L. Hempen.	AD A194 520
REMR-GT-10	Jul 89	High Resolution Seismic Reflection Investigations at Beaver Dam, Arkansas, by Thomas L. Dobecki, Tanya L. Mueller, and Monroe B. Savage.	AD A211 228
REMR-GT-11	Sep 89	Levee Underseepage Analysis for Special Foundation Conditions, by Thomas F. Wolff.	
REMR-GT-12	Sep 89	Re-Evaluation of the Sliding Stability of Concrete Structures on Rock with Emphasis on European Experience, by K. Kovari and P. Fritz.	
REMR-GT-13	Sep 89	Levee Underseepage Software User Manual and Validation, by Robert W. Cunny, Victor M. Agostinelli, Jr., and Hugh M. Taylor, Jr.	
REMR-GT-14	Mar 90	Surface Roughness Characterization of Rock Masses Using the Fractal Dimen- sion and the Variogram, by James R. Carr	
Unnumbered	Jan 88	Proceedings of REMR Workshop on New Remedial Seepage Control Methods for Embankment-Dams and Soil Foundations, by Edward B. Perry.	
Unnumbered	Jul 89	Proceedings of REMR Workshop on Research Priorities for Drainage Sys- tem and Relief Well Problems, by Roy E. Leach and Hugh M. Taylor, Jr.	
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REMR-HY-1	Jul 86	Annotated Bibliography for Navigation Training Structures, Compiled by Walter E. Pankow and Robert F. Athow, Jr.	AD A173 303
REMR-HY-2	Jun 87	Floating Debris Control; A Literature Review, by Roscoe E. Perham.	AD A184 033

REMR-HY-3	Sep 88	Elements of Floating Debris Control Systems, by Roscoe E. Perham.	AD A200 454
REMR-HY-4	Mar 89	Effects of Geometry on the Kinetic Energy of a Towboat and Barges in a Navigation Lock, by Sandra K. Martin.	AD A207 057
REMR-HY-5	Mar 89	Explicit Numerical Algorithm for Modeling Incompressible Approach Flow, by Robert S. Bernard.	AD A207 176
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REMR-OM-3	Jun 89	User's Manual: Inspection and Rating of Steel Sheet Pile Structures, by Lowell Greimann and James Stecker.	AD A210 411
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REMR-OM-5	Sep 89	Timber Dike Management System, by H. Thomas Yu and Anthony M. Kao.	
REMR-OM-6	Dec 89	Network Level REMR Management System for Civil Work Structures: Con- cept Demonstration on Inland Water- ways Locks, by Michael J. Markow, Sue McNeil, Dharma Acharya, and Mark	

Brown

### REMR Index

### PART 3

### **REMR Technical Notes**

REMR Technical Notes are loose-leafed fact sheets on techniques, materials, and equipment used in REMR research. This section lists all the fact sheets published in *The REMR Notebook* through September 1990. The first two letters of a technical note number correspond to the code for the section of the notebook which contains the technical note.

- CM -- CONCRETE MATERIALS
- CO--COASTAL
- CS -- CONCRETE AND STEEL STRUCTURES
- EI -- ENVIRONMENTAL IMPACTS
- EM -- ELECTRICAL AND MECHANICAL
- GT--GEOTECHNICAL
- HY--HYDRAULICS
- OM -- OPERATIONS MANAGEMENT

The REMR Notebook is intended as a quick reference document. It is a collection of technical notes that address REMR activities at US Army Corps of Engineers civil works projects. Each technical note lists a statement of purpose and a point of contact for additional information. It may also include when and where to apply the technology described, advantages and limitations of its use, cost and availability of products or services, and personnel requirements. A copy of the notebook has been distributed to the Engineering Construction, Operations and Planning Division of each Corps District and Division as well as to the libraries of each district and division. Copies of Vol I & II through Suppl 5 for personal use can be purchased for \$65.00 by writing Commander and Director, US Army Engineer Waterways Experiment Station, ATTN: CEWES-SC-A (TTS), 3909 Halls Ferry Road, Vicksburg, Miss. 39180-6199.

### **REMR Technical Notes**

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This section lists all technical articles published in *The REMR Bulletin* through September 1990. The articles are listed by volume and number of the issue in which they appeared. The title and author of each article is provided. A bulletin article listed in Part 1 as RP-2-3 can be found under Vol. 2 No. 3.

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## PART 5

## **REMR Technology Videos**

REMR technology videos are available through the Inter-Library Loan Service. A local librarian can request copies of the videos by calling the U. S. Army Engineer Waterways Experiment Station Library at (601) 634-2355. These tapes may be copied and can be used for private viewing, to support classroom instruction, or during presentations.

#### **REMR Videos**

- **REMR-CS-1** Remedial Waterstop Installation at Pine Flat Dam, Dec 86, 13 min, 1/2-in. (See *The REMR Bulletin*, Vol 2, No. 3)
- **REMR-CS-2** Precast Concrete Stay-in-Place Forming System for Lock Wall Rehabilitation, Jul 88, 20 min, 1/2- & 3/4-in. (See Technical Report REMR-CS-14)
- **REMR-CS-3** Antiwashout Admixtures for Use in Underwater Concrete Placement, Mar 89, 15 min 20 sec, 1/2-in. (See Technical Report REMR-CS-19 and Technical Note CS-MR-7.2)
- **REMR-GT-1** Computer Monitoring of Foundation Grouting, Jun 86, 10 min, 1/2- & 3/4 in.
- **REMR-HY-1**E xcessive Scour Downstream of High Level Emergency Spillways, Oct 87, 20 min, 1/2- & 3/4-in. (See Technical Note HY-FC-1.1)
- **REMR-PM-1** Overview of the Repair, Evaluation, Maintenance and Rehabilitation (REMR) Research Program, Apr 85, 17-1/2 min, 3/4-in. (See Technical Report Unnumbered CS83)
- Workshop: Underwater Inspection & Repair of Hydraulic Structures, 27-28 Nov 84, 1/2-in. (See also Technical Report REMR-CO-11)
- Tape 1: Introduction and REMR Overview, CPT Wylie Bearup, 7 min Concrete & Steel Problem Area, J.E. McDonald, 7-1/2 min Underwater Inspection of Coastal Structures, Gary Howell, 47 min
  - Tape 2: Naval Facilities Specialized Inspection Program, Phil Scola, 51 min
- Tape 3: Underwater Survey Techniques of the Naval Explosive Ordinance Disposal Technology Center, John Pennella, 17 min Inspection Techniques in Turbid Water, Dan McGeehan, 18 min Inspection of Kinzua Dam, Anton Kryza, 25 min
- Tape 4: Underwater Survey and Repair (TVA), Dave Hegseth, 23 min Inspection of R. D. Bailey Dam, Lloyd Schell, 20 min
  - Tape 5: Underwater Repair and New Survey Techniques, Steve Tatro, 32 min
- Tape 6: Wynoochee and Chief Joseph Dams Investigation and Repair, George England and Paul Johnson, 40 min Repair of Lock and Dam 26, Mel Stegall, 16 min
  - Tape 7: Weber Falls Stilling Basin Repair, Reggie Kikugawa, 30 min
  - Tapes 7 & 8: Underwater Repair of Hydraulic Structures, John Baehr, 46 min

Tape8: FY 85 REMR Research Program Review, REMR Staff, 39-1/2 min

Workshop: New Remedial Seepage Control Methods for Embankment-Dams and Soil Foundations, 21-22 Oct 86, 1/2- and 3/4-in. (See Technical Report Unnumbered GT88)

**Tape 1:** Introduction, REMR Overview, LTC Jack Stephens, William F. McCleese, Britt Mitchell, Edward B. Perry, Joe Kauschinger, 30 min

Tape 2: Chemical and Micro-Fine Grouting, Reuben Karol, 58 min

Tape 3: Drains, Wally Sherman, 40 min

Tape 4: Upstream Impervious Blanket, Bill Morrison, 44 min

Tape 5: Reinforced Downstream Berms, Mike Duncan, 58 min

Tapes 6 & 6A: Plastic Concrete Cutoff Walls, George Tamaro, 72 min

Tape 7: Jet Grouted Cutoff Wall, Giorgio Guatteri, 60 min

Tape 7A: Dynamic Grouting by High, Giorgio Guatteri, 22 min

Tape 8: Use of Hydrofraise to Construct Concrete Cutoff Walls, Joe Parkington, 61 min

Tapes 9 & 9A: Ground Freezing as a Construction Expediency for Excavating Cutoff Trenches and/or Installation of Drains, John Shuster, 75 min

Tape 10: Panel Discussion, Joe Kauschinger, 60 min

Workshop: Repair and Maintenance of Shallow-Draft Training Structures, 24-25 Feb 87, 3 hr 32 min